

ABSTRACT

A single, controlled etch step can be used to form a sharp tip feature along a sidewall of an etch feature. An etch process is used that is selective to a layer of tip material relative to the substrate upon which the layer is deposited. A lag can be created in the etch, such that
5 the etch rate is slower near the sidewall. The sharp tip feature is formed from the same layer of material used to create the etch feature. The sharp tip feature can be used to decrease the minimum critical dimension of an etch process, such as may be due to the minimum resolution of a photolithographic process. The novel tip feature also can be used for other applications, such as to create a microaperture for a photosensitive device, or to create a
10 micromold that can be used to form objects such as microlenses.